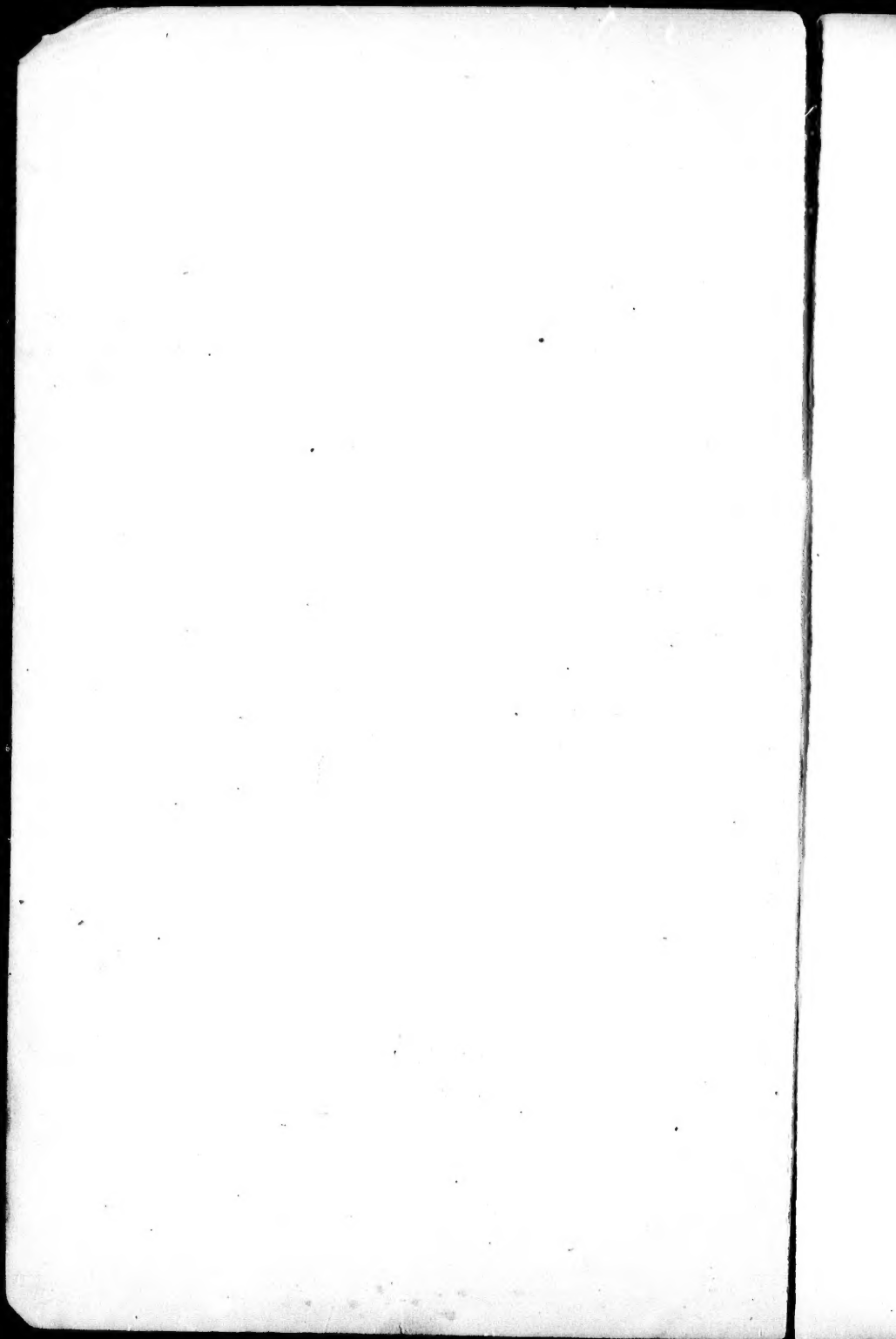


THE
MACAN COAL MINES
IN THE
COUNTY OF CUMBERLAND
NOVA SCOTIA



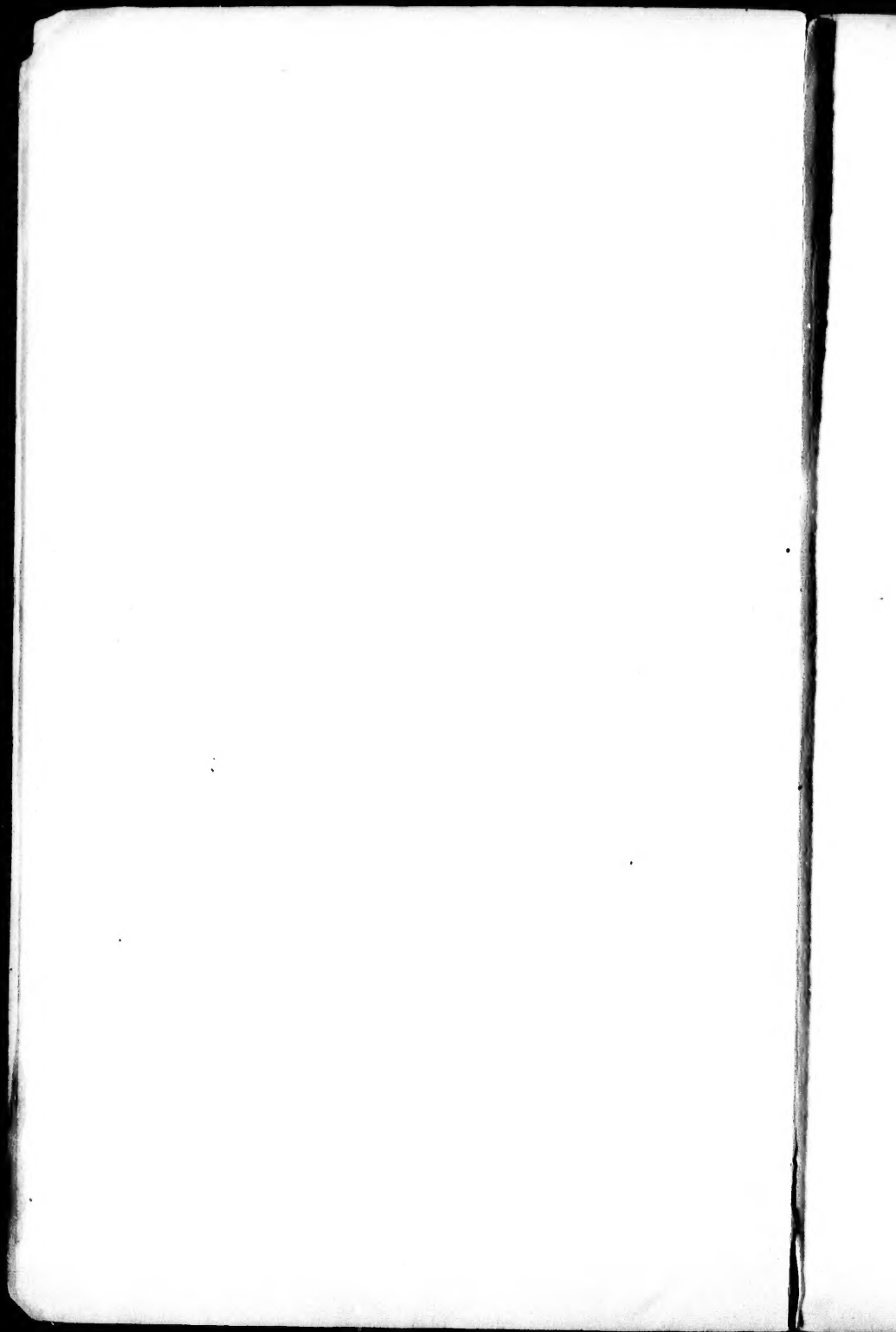
BOSTON
1863



THE
MACAN COAL MINES
IN THE
COUNTY OF CUMBERLAND, NOVA SCOTIA



BOSTON
PRINTED BY J. B. CHISHOLM, 12 WATER STREET
1863



MACAN COAL COMPANY.

PRESIDENT.

S. PARKMAN SHAW, Esq.

TREASURER.

J. GARDNER WHITE, Esq.

DIRECTORS.

FRANCIS LOUSADA, Esq., H. B. M. Consul.

S. PARKMAN SHAW, Esq.,

A. D. LAMSON, Esq.,

G. B. JONES, Esq.

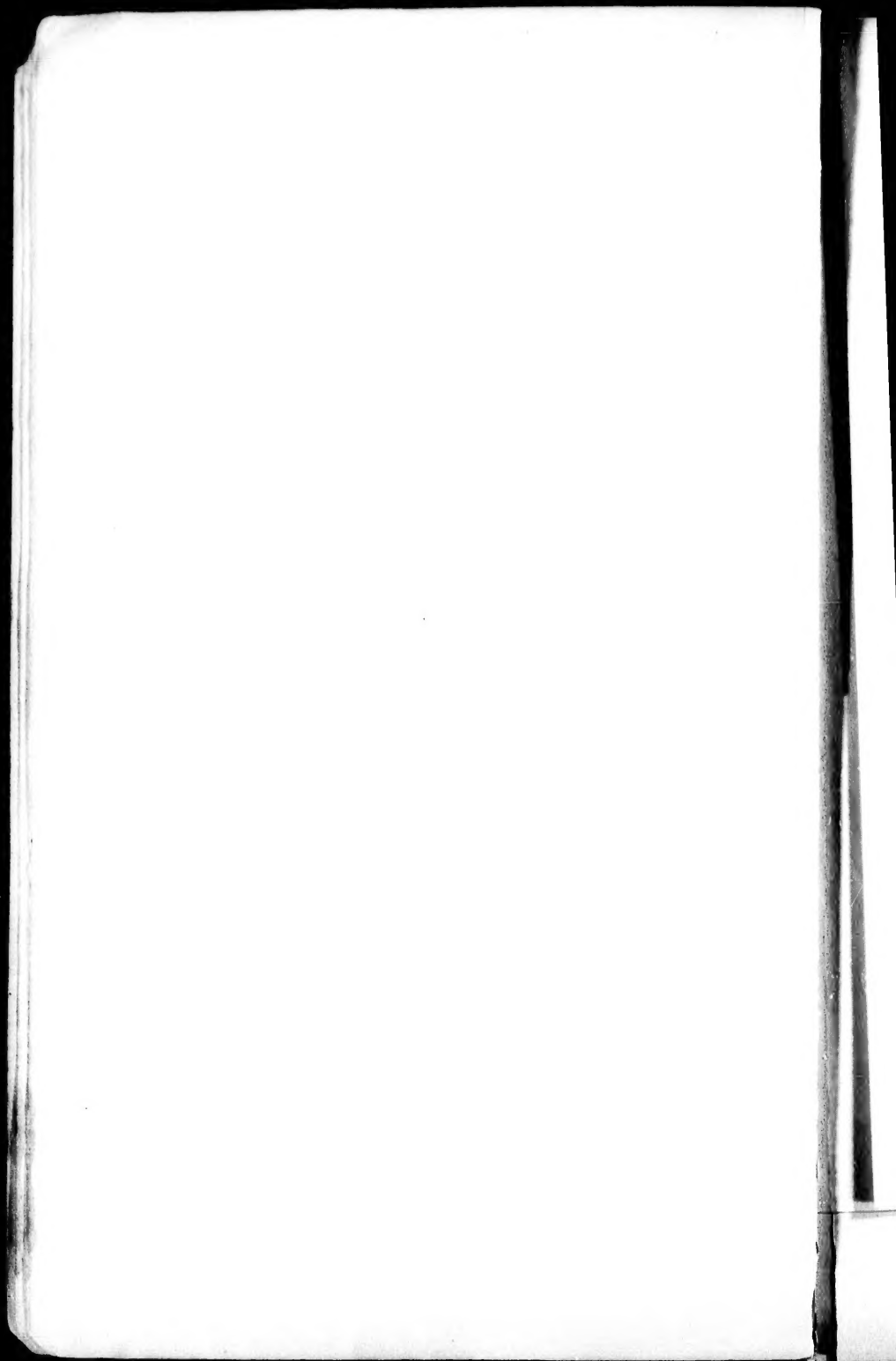
FRANCIS HOWE, Esq.

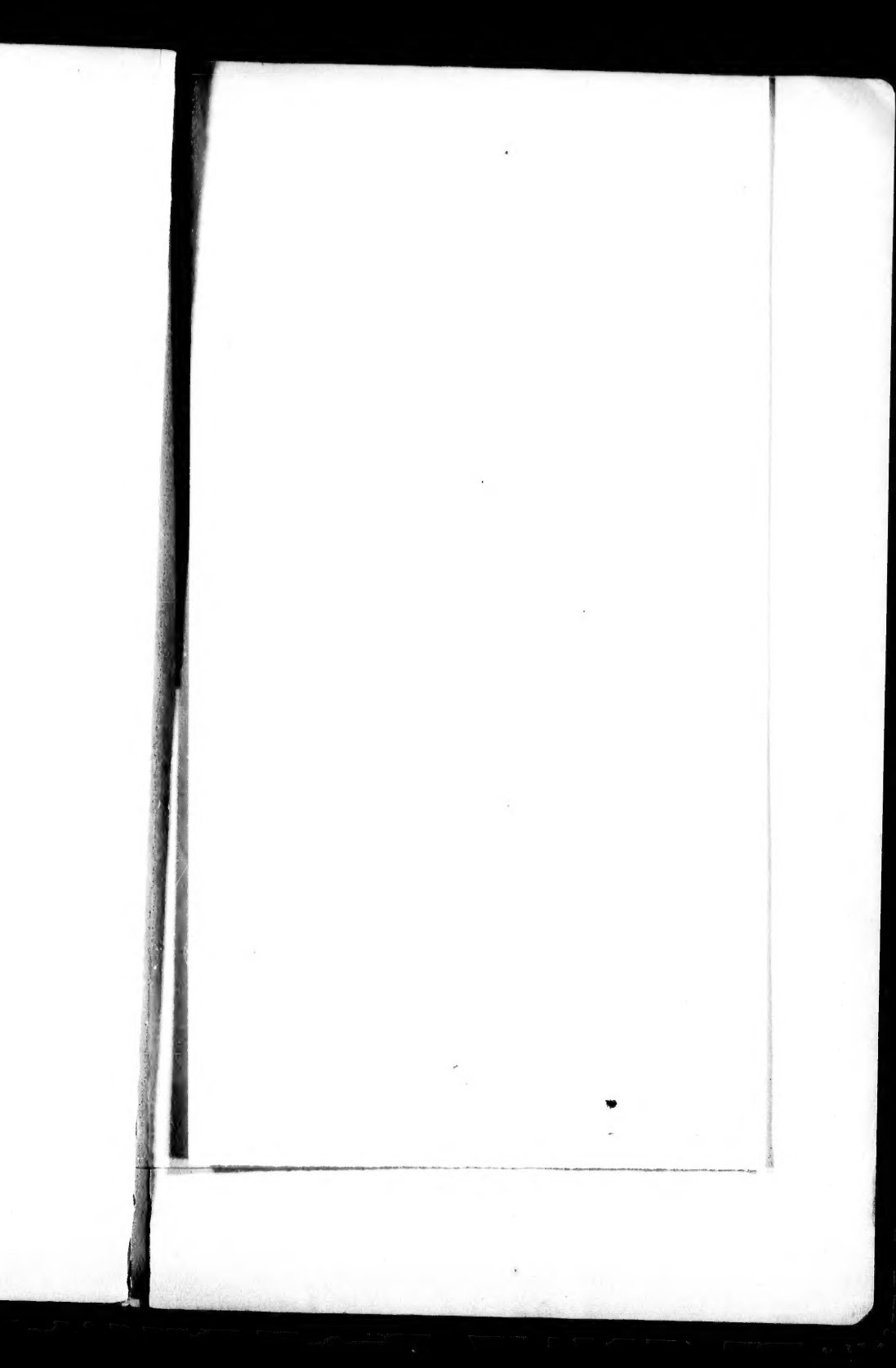
L. H. STRAW, Esq.,

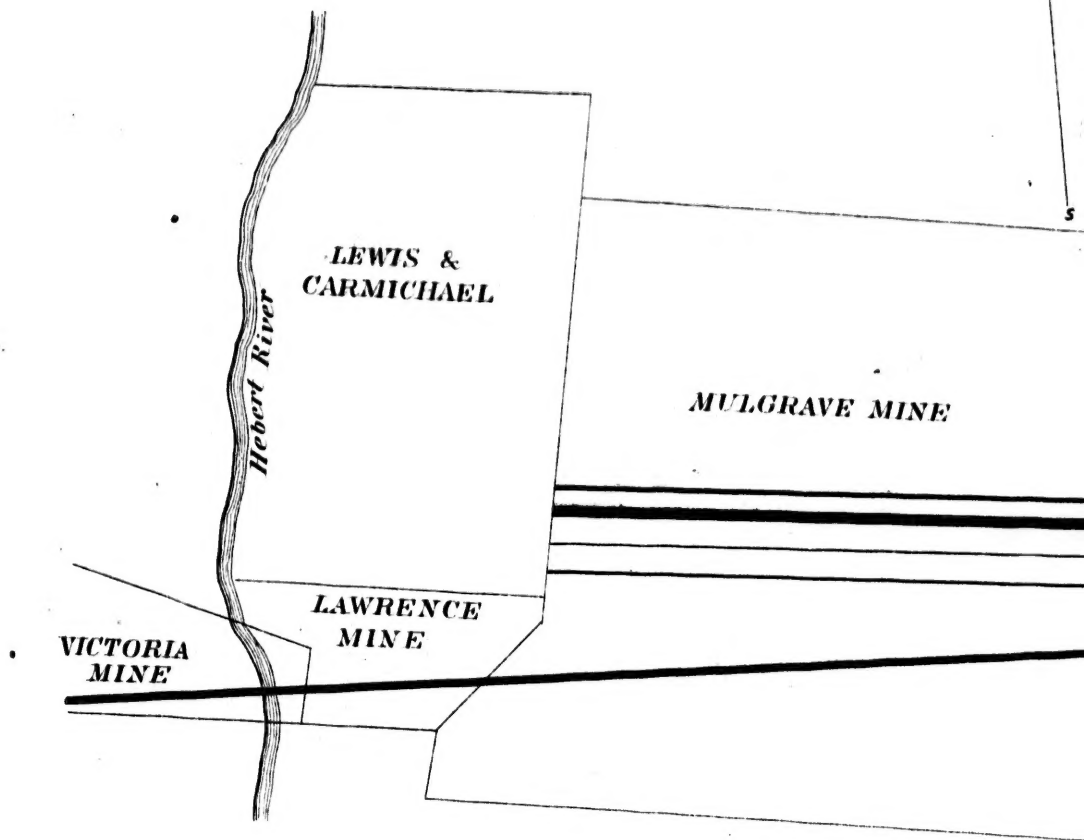
CLERK.

J. W. PRESTON, Esq.

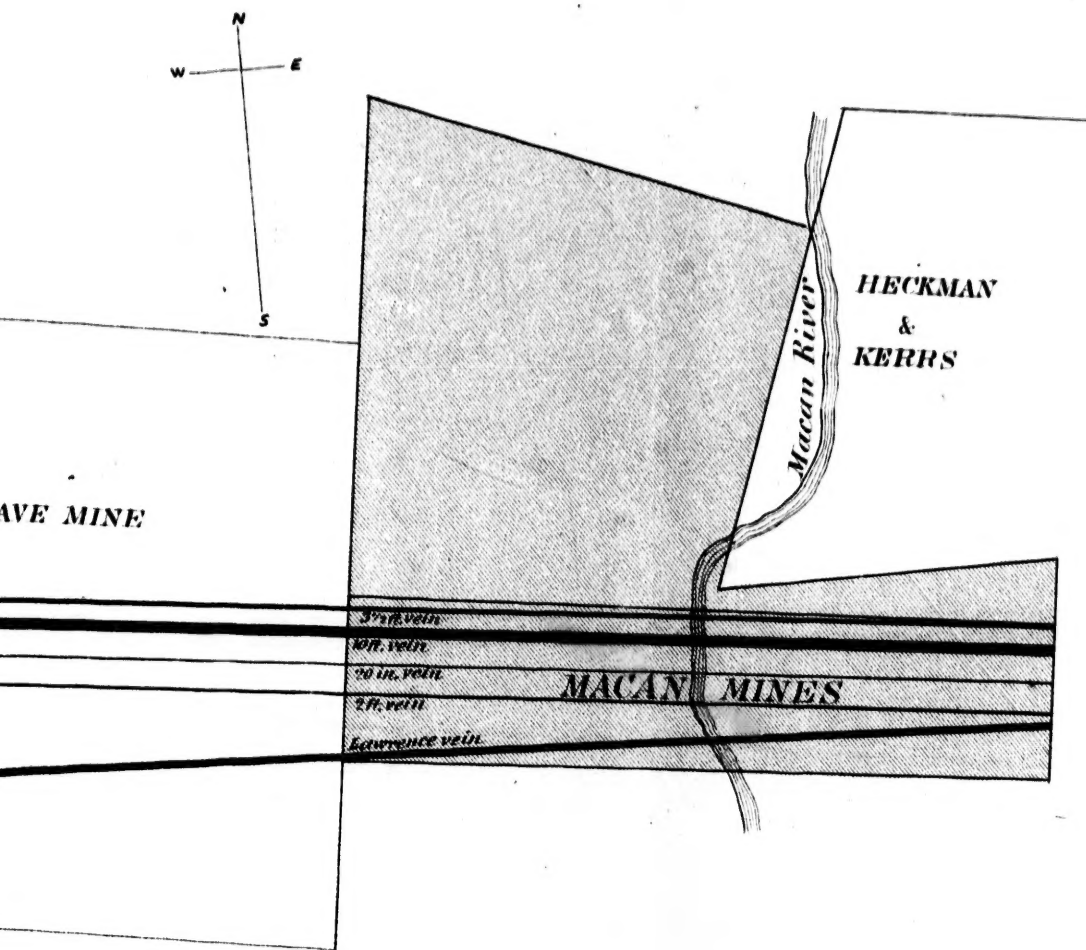
OFFICE OF THE COMPANY, 19 DOANE STREET
BOSTON.







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SURVEY OF MACAN MINES

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MACAN COAL MINES.

At this time when emergencies have caused the price of coal to rise to an unprecedented rate, it is evident that the public interest demands a greater production and more extended mining facilities than have thus far been developed, and to those wishing to ascertain where to mine most profitably, and with the prospect of the largest returns of coal, the advantages of the MACAN MINES are now presented.

It is a self-evident fact that so long as coal is consumed for domestic use, and for making steam in cotton factories, woollen factories, locomotives, and steam vessels, and for the manufacture of gas, and the working of iron, this mineral must always be in demand, and as the number of these manufactories annually increase, so must the need of more coal be felt; and the mining of it must be very profitable if the mine is judiciously worked. The coal hitherto mined on the Macan veins has been used for all these purposes with a favorable result. In this country, peculiarly, the consumption of this fuel is increasing with the general increase of population where it is employed, with the wider area over

which it is used, with each new purpose to which it is applied, and with the growth of every description of manufacture requiring power. In the machine shop and factory, on the railroad and canal, on the rivers and the ocean it is steam that is henceforth to perform the labor, and it is not for human intellect to assign a limit to the application of this power in a country like that which we inhabit, and for the production of this power coal will be required. Taylor, in his *Statistics of Coal* published 1855, said, "it would be no difficult task to show how vastly more profitable is the application of labor in the mining and working and transporting of coal, than in that of the precious metals. The value of coal produced annually, in Great Britain, alone, is computed at £10,000,000, at the pit's mouth. Coal is now the indispensable aliment of industry. It is a primary material; engendering force; giving a power superior to that which natural agents such as water, air, &c., procure. It is to industry what oxygen is to the lungs, water to the plant, nourishment to the animal. It is to coal we owe steam and gas; and for workshops and the domestic hearths, in our northern latitudes it is destined always to acquire increasing and more general use."

The **MACAN MINES** are situated at the mouth of the Macan river, on Chegnecto Bay, at the head of the Bay of Fundy, in Nova Scotia, and are reached by vessels of the largest draught.

The property consists of mining rights on 640 acres of land, with the improvements thereon, extending along the courses of several veins, or beds, of bituminous coal. Two of the coal beds have been opened and worked with great profit. The shape of the tract is such that the veins comprised in it are

two miles in length. The property also includes Government licenses to search on the ten adjoining square miles.

The Pictou coal, to which this is closely allied, has for some years been favorably known to the public, and has been very profitably worked by the owners.

In 1845, in a geological report to the Provincial Government of Canada, Sir W. E. Logan, in writing of the carboniferous strata as developed at the Joggins, a continuous cliff eighty to one hundred feet high, on the south shore of Chegnecto Bay, mentioned the fact that "thicker coal beds appear to exist to the eastward of the Joggins. On the Macan river, which falls into Cumberland Bay, a seam occurs of ten feet in thickness." This vein, with three other good veins, have since been developed in the **MACAN MINES**.

Mr. Dawson, in his excellent report of the geological survey made for the British Government, said that the finest and probably most productive part of the coal vein of the great Cumberland district lies in a line drawn from Springhill to Joggins. The **MACAN MINES** lie on this line, and have proved the truth of Mr. Dawson's theory, for they have been worked profitably for the past two years, entirely by hand labor and without capital, producing a good quantity of coal which has sold readily at very remunerative rates, although of course not mined with so great profit as if worked by machinery.

The title is directly from the British Government to the present owners, and is therefore undoubtedly secure. The loading ground is but one half of a mile from the mouth of the mine, and vessels of the largest size will be able to approach the Company's wharf. These mines lie more than two hundred miles nearer to Boston than the Pictou or Sydney

mines and therefore have an advantage of freight. The quality of the coal has been highly commended by those who have used it.

These mines were first opened by Mr. William Patrick, the former owner, about two years since. With scanty means, and working therefore on a very contracted scale, he has been able to send off one cargo from the large vein, and has sold one hundred tons from a smaller vein of two feet width.

Mr. Patrick has sunk a slope of 80 feet in length on the seam of coal at 30 degrees inclination, and has stoped on either side to a considerable distance. He has also run an adit of 400 feet on water level from which he has taken large quantities of coal. He is now running a large, thoroughly built adit which will drain the mines, and save the expense of pumping, and he is pushing the work vigorously.

The quantity of coal in these mines is believed to be inexhaustible, at any probable rate of mining, for many years.

A short distance to the west of the MACAN MINES are situated the Lawrence, and the Victoria mines, the former on the east, and the latter on the west side of the Hebert river. The principal veins of both these mines pursue a direction nearly east and west, and it is the opinion of Mr. Patrick and others, that they crop out on the Macan property, while the latter possesses veins not found on either of the others.

Some idea of the quality of the coals in the MACAN MINES, and of the profit with which they may be worked, can be obtained from the reports of the Lawrence, and the Victoria mines.

The report of the Victoria Company says:

"Taking 30,000 tons as the quantity shipped in one year, the result of the season's operations will be as follows:

Expense of mining and delivering on board vessel	
30,000 tons at \$1,	\$30,000
Incidental expenses, wear and tear, salaries, &c.	3,000
	\$33,000
30,000 tons realize at \$2,	60,000
Profit of season's business,	\$27,000"

The selling price of coal, \$2, given above, is too low, \$2.50 is the actual price. Mr. Patrick has sold all his product at \$3.50 per chaldron. This price is realized on the wharf at the mines.

The Lawrence Coal Company commenced shipping coal within the last twelve months, and the results thus far justify their expectation to divide this year 10 per cent. upon their capital of \$200,000, notwithstanding the very considerable amounts expended on the necessary permanent works at their mines.

Analysis of these coals have been made by Dr. A. A. Hayes of this city, and Mr. R. Foulis of St. John, New Brunswick, both distinguished as analyzing chemists and assayers.

Dr. Hayes says of the coal from the Victoria mine on Hebert river, "It is strictly a gas-producing coal. Of 100 parts it contained

Loose volatile matter	36.00
Carbon in coke left	51.84
Grey Ash	12.16
	100.00

"In the gas a small proportion of sulphuretted carbon is found, but the general characteristics of the gas correspond to those of Pictou coal gas. 4.17 cubic feet of gas were afforded by 1 lb. of the coal, which is a larger volume than Pictou coal makes.

"As a basis coal, therefore, this sample promises to be highly desirable for gas manufacturing, the coke being grey black and quite dense, and affords much heat in burning.

"In burning and affording heat it holds a place between Sydney and Pictou kinds, closely resembling the latter."

Mr. Foulis says:

"The specific gravity of the coal is 1.345, and it would be an excellent article for gas making purposes, when mixed with cannel coal, and where good coke is required, as the latter takes the shape of the vessel in which it is made."

It is estimated that an outlay of \$50,000 at the MACAN MINES will produce a net profit of \$50,000 per annum, and that an increased outlay will produce a still larger ratio of net profits.

It is proposed to commence operations at once and pursue the work with energy, the property having been already secured.

The Macan Coal Company have secured for their mines a first class Superintendent, Mr. Patrick, the former owner of this property. The following letter is a testimonial of the reliability of Mr. Patrick and his opinion as a skillful and reliable mining captain:

"OFFICE OF PRESTON COAL AND IRON CO.

18 Broadway,

New York, 31st May, 1858.

"MR. WILLIAM PATRICK,

"Dear Sir,

"For four years past you have been in our employ as Superintendent of our mines in Allegany Co., Maryland. During that time you have erected new machinery and otherwise improved our works, all of which has been done to our satisfaction.

"We regret that the state of the coal trade at present is such that it is not advisable for us to mine, and that the salary we offer you while standing idle is not worth your remaining with us.

"It is with regret we part with you, and we take pleasure in recommending you to any person or company who may want an *honest, reliable, skilful man*.

"With the kindest wishes for your future happiness and prosperity,

"I am,

Yours respectfully,

"DAVID D. VOORHEES,

President."

The following letter from Mr. Patrick, the Superintendent of the MACAN MINES, will serve to show his opinion of the property and of the prospect of working the mines with profit:

"MACAN MINES, 5th June, 1863.

"Dear Sir,

"I would have written you sooner but expected to have the large vein of coal opened on the west side of the fault before I wrote. I expect we will be down to the coal

within two or three days, but it will take at least a week to get to the bottom, as the vein including the fireclay in the middle is about 10 feet thick. Have got the pit down about 12 feet and expect to get the coal in about 4 or 5 feet more, so that the pit to the bottom of the coal will be about 25 feet, nearly level with our old mine, then, by driving a mine about 30 feet through the fault to our old mine, it will drain itself without a pump, which will be a great saving in the cost of raising the coal. This vein is allowed to be better than the Hebert or the Lawrence vein, but I think inferior to the vein down the brook where we were working last winter, which I am confident is the best vein in this coal basin.

"I have been engaged in the mining business since a boy, practically and experimentally, and I think it is rare to find a better prospect for a capitalist to invest money profitably in the coal mining business than the Macan Mines, as can easily be seen by visiting them. All it wants is capital and proper management to make money.

"Please find enclosed an analysis [in the first part of this report] of the river Hebert coals by A. A. Hayes and R. Foulis. It may be of service as we have the same veins."

In a subsequent letter Mr. Patrick writes, "We have struck the upper vein of coal (10 feet vein) in the mine about 24 feet north of the pit, so we have reason to believe that a short time will bring us to the 3 feet vein which lies immediately under the one we are into now, on the east side of the fault. I will endeavor to have the work driven ahead as expeditiously and economically as possible." In another letter he says, "I have found a vein of 20 inches of good coal 100 feet north of the 2 feet vein."

These veins are in addition to other veins on the property, which make it appear to be a large coal bed.

Mr. Patrick having, from his long experience as Superintendent of the great mines in Maryland, a thorough knowledge of the requirements for working a first class mine most skillfully and profitably, and knowing perfectly this mine and the force of men required, and the price of labor, and having ascertained at St. John the cost of engine, rails for road, tools, &c., at that place, makes the following estimate of expenses, calculating the price of machinery and of labor at *maximum* rates and the result of coal product per man at *minimum* estimate.

"To make this a first rate and permanent investment I would sink the slope about 250 feet further, which would cost about

\$2 per foot,	-	-	-	-	-	-	500.
Engine 20 horse power,	-	-	-	-	-	-	1600.
House and fixtures for engine,	-	-	-	-	-	-	400.
Force pump and fixtures,	-	-	-	-	-	-	300.
30 small wagons and whirleys,	-	-	-	-	-	-	300.
350 feet chain,	-	-	-	-	-	-	50.
Smith shop and fixtures,	-	-	-	-	-	-	100.
House for coal in winter,	-	-	-	-	-	-	200.
10 double houses for 20 families,	-	-	-	-	-	-	2000.
22 tons T rail for railroad,	-	-	-	-	-	-	1320.
1400 sleepers for railroad,	-	-	-	-	-	-	84.
Grading and laying road,	-	-	-	-	-	-	500.
10 two-ton cars from mine to wharf,	-	-	-	-	-	-	300.
3 horses, barn, horse, wagon and harness,	-	-	-	-	-	-	400.
Wharf, tools,	-	-	-	-	-	-	600.
Right of way and land for railroad,	-	-	-	-	-	-	500.
About 10 per cent. for extras,	-	-	-	-	-	-	900.

\$10,054

"It will require about

50 Miners to raise 100 tons per day, at \$1.50 each,		75.00
2 Roadsmen,	\$1. "	2.00
2 Banksmen,	\$1. "	2.00
1 Engineer,		1.00
1 Smith,		1.50
1 Helper,		1.00
3 Drivers,	\$1. "	3.00
1 Weigher,		1.00
3 Horses,	.50 c. "	1.50
100 Props per day for mine,	.03 "	3.00
Oil and extras,		5.00
		\$96.00

"You see according to my calculation it will cost about \$10,000 to complete these works for raising and shipping from 100 to 150 tons of coal a day. The mine and machinery will be ample for 150 tons if wanted, and would require a few more miners, but would make very little difference in the expense any other way.

"I think I have made all my calculations as high as they can go, so that you have the worst."

Multiplying Mr. Patrick's figures in the ratio at which the Company intend to work, it is seen that

1000 tons per diem cost	\$960.
1000 " " " at \$3. realize	3000.

Each day's profit,		\$2040.
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BY-LAWS

OF THE

MACAN COAL COMPANY.

ARTICLE I.

The Annual Meeting of the Stockholders of the MACAN COAL COMPANY shall be held in the City of Boston on the second Monday of July, in each year, at such time and place as the Directors shall appoint, and such meetings may be adjourned from time to time and place to place, without publishing or giving further notice.

ARTICLE II.

The officers of the Company shall be seven Directors, a President, a Treasurer, and a Clerk. The Directors, Treasurer and Clerk shall be chosen by the Stockholders at their first meeting, and thereafter at the annual meetings of the Company and shall continue in office until the next succeeding annual meeting, or until others are chosen and accept in their stead.

The President shall be chosen by the Board of Directors, from one of their number, at their first meeting after election, or at some adjournment thereof; and, thereafter, at their first meeting next succeeding the annual meeting of the Company.

ARTICLE III.

It shall be the duty of the President to preside at all meetings of the Company, and of the Directors; and in the event of his absence, resignation, or inability, a President *pro tempore* may be appointed.

ARTICLE IV.

The Treasurer shall have the custody of all monies, valuable papers, books, and accounts of the Company, subject at all times to the inspection and control of the Directors; he shall pay out money, taking suitable vouchers therefor, and give or negotiate such notes or bills of exchange, for such amounts and at such times, as the business of the Company may require, and the Directors may order, but for no other purpose; and he shall or may endorse notes, checks or bills of exchange received by the Company in the prosecution of their business, making careful record thereof in the books of the Company. He shall record all transfers of stock and shall cancel, and carefully preserve certificates of all stock transferred; and he shall perform all duties pertaining to the office of Treasurer. He shall give a bond, with sureties, satisfactory to the Directors, for the faithful performance of his duties in the penal sum of ten thousand dollars (\$10,000.)

ARTICLE V.

The Clerk shall keep a record of the proceedings and doings of the Company, and of the Directors, at their meetings. In the event of his absence, or inability, a Clerk, *pro tempore*, may be chosen.

ARTICLE VI.

The Corporate Seal shall be a circle, on which shall be borne the name of the Company, and the year of its organization, 1863, of which seal the Treasurer shall have the custody.

ARTICLE VII.

The Directors shall have the general supervision and control of the affairs of the Company. They shall hold their first meeting upon due notice being given by the Clerk of said Company, and thereafter shall meet at such times and places as they shall deem needful and convenient. The Clerk shall notify meetings of the Directors upon the request of any two of their number, by giving written or printed notice of the time and place thereof to each Director. The Directors may appoint such agents or superintendents as they may deem best, and they may make arrangements for the compensation of the Treasurer, Agent, or any other person employed by the Company, in such way and manner as they shall deem best. The Directors shall, from time to time, order such division of the profits of the Company, as they may think advisable; and, at any of their meetings, four Directors shall constitute a quorum for the transaction of business.

ARTICLE VIII.

Each holder of Stock shall be entitled to a certificate, or certificates, of his or their shares therein, upon the full payment of the par value of each share, sealed with the Seal of the Company, signed by the Treasurer, and countersigned by the President, in the following form :

No. —

— Shares.

MACAN COAL COMPANY.

ORGANIZED UNDER THE GENERAL STATUTES OF MASSACHUSETTS.

This certifies that ———— of ———— is entitled to
 ———— Shares in the Capital Stock of the Macan Coal
 Company.

Witness the Seal of the Company at Boston
 this ———— day of ———— A. D. 18—

Capital
 Stock
 \$200,000.

Shares
 \$100
 each.

——— President. } Seal of
 } the Company. { ———— Treasurer.

On the reverse of which certificate shall be the following
 transfer, namely :

For value received ———— hereby sell and transfer to
 ———— of ————, ———— Shares in the Macan Coal
 Company, numbered ————, dated the ———— day of ————,
 A. D. 18—.

ARTICLE IX.

Special meetings of the Company may be ordered by the Directors at such time or times as they shall deem best, and they shall order the same to be called on the written application of persons owning one fifth in value of the shares of said Company, all which meetings shall be held at such time and place as the Directors shall order, in the City of Boston, and the Clerk shall give notice of the time and place of every annual and special meeting by depositing a written or printed notice in the Post Office in Boston, (postage prepaid) to the address of each Stockholder, according to the stock record, or by publication in some newspaper printed in the city of Boston, in either mode at least seven days previous to the time specified for holding such meeting.

The Clerk shall record the date on which he so deposits or publishes such notice, upon the record book of the Company and such record shall be conclusive evidence of the fact.

At any annual or special meeting of the Company, persons or corporations holding, or representing, one eighth part in number of the shares of the said Company shall constitute a quorum for the transaction of business.

ARTICLE X.

The capital stock of this Company shall be \$200,000 divided into two thousand shares at a par value of one hundred dollars for each share.

ARTICLE XI.

These By-Laws may be altered or amended at any annual meeting of the Company, or at any special meeting, in the call for which notice is given that an alteration or amendment of the By-Laws will be proposed.
